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09/874,091	06/04/2001	Deborah Charych	1680.002	6042

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Chiron Corporation
Intellectual Property Law Department
Mail Stop R-3
PO Box 8097
Emeryville, CA 94662

EXAMINER	
TRAN, MY CHAU T	
ART UNIT	**PAPER NUMBER**
1639	

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/874,091	Applicant(s) CHARYCH ET AL.	
	Examiner My-Chau T. Tran	Art Unit 1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 55-91* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 55-91* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *14* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Status of Claims

1. Applicant's amendment filed 6/30/03 in Paper No. 15 is acknowledged and entered. Claims 2-20, and 53 are canceled by the amendment. Claim 1 is amended by the amendment. Claims 55-91 are added by the amendment.

Drawings

2. The drawings were received on 6/30/03. These drawings are acceptable.

Withdrawn Rejections

3. The previous objection for claim 53 has been withdrawn in view of applicant's cancellation of claim 53.

4. Claims 1, and 55-91 are pending.

New Rejections – Necessitated by Amendment

Claim Objections

5. Claim 72 is objected to as an improper dependent claim since it depends on cancel claim 19 that result in a broken pendency chain. However in order to further prosecution, Claim 72 is interpreted to depend on claim 71. Appropriate correction is required.

A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim, which depends from a dependent claim, should not be separated by any claim, which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 60-68 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. (This is a new matter rejection.)

The instant claim 60 briefly recites an array comprising a substrate, and a plurality of different protein-binding agents bound to the substrate. The substrate comprise of a non-native oxide coated metal and further comprise of an organic chemical modification layer between the oxide and the protein-binding agents.

The recitation of 'wherein the oxide-coated metal substrate surface further comprises an organic chemical modification layer between the oxide and the protein-binding agents' claimed in claim 60, have no clear support in the specification and the claims as originally filed. The specification in page 13 disclosed '*the amino-modified Al surfaces maybe functionalized with a reactive group that will bind to the anchor functional group on a protein-binding agent*' (line 15-

17) and in page 21 disclosed '*the final amino-modified Al surfaces may be functionalized with SMCC to render a surface that presents maleimide functional groups*' (line 29-30) are not support for '*an organic chemical modification layer between the oxide and the protein-binding agents*'. Because the limitation of the specification recites functionalizing the amino-modified Al surfaces with a reactive group, it does not support the limitation of claim 60, which recites an organic chemical modification ***layer*** between the oxide and the protein-binding agents. Therefore, the invention as originally disclosed in the specification would not encompass the limitation of an organic chemical modification ***layer*** between the oxide and the protein-binding agents.

If applicants disagree, applicant should present a detailed analysis as to why the claimed subject matter has clear support in the specification.

8. Claims 79-87 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. (This is a new matter rejection.)

The instant claim 79 briefly recites a kit comprising a substrate, and a plurality of different protein-binding agents bound to the substrate. The substrate comprise of a non-native oxide coated metal and further comprise of an organic chemical modification layer between the oxide and the protein-binding agents.

The recitation of 'wherein the oxide-coated metal substrate surface further comprises an organic chemical modification layer between the oxide and the protein-binding agents' claimed

in claim 60, have no clear support in the specification and the claims as originally filed. The specification in page 13 disclosed '*the amino-modified Al surfaces maybe functionalized with a reactive group that will bind to the anchor functional group on a protein-binding agent*' (line 15-17) and in page 21 disclosed '*the final amino-modified Al surfaces may be functionalized with SMCC to render a surface that presents maleimide functional groups*' (line 29-30) are not support for '*an organic chemical modification layer between the oxide and the protein-binding agents*'. Because the limitation of the specification recites functionalizing the amino-modified Al surfaces with a reactive group, it does not support the limitation of claim 79, which recites an organic chemical modification ***layer*** between the oxide and the protein-binding agents. Therefore, the invention as originally disclosed in the specification would not encompass the limitation of an organic chemical modification ***layer*** between the oxide and the protein-binding agents.

If applicants disagree, applicant should present a detailed analysis as to why the claimed subject matter has clear support in the specification.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Pease et al. (US Patent 5,831,070).

Pease et al. teach an apparatus comprise a substrate with an array of polymers such as peptide analogs and oligonucleotides (col. 1, lines 52-57; col. 6, lines 4-54). The substrate is flat and comprise of silicon or glass surface (col. 8, lines 44-54; col. 12, lines 2-12). The surface of the solid substrate contain reactive groups (anchoring segment) such as amino (col. 12, lines 19-23). The substrate includes a surface with a layer of linker (linker segment) (col. 10, lines 24-28; col. 12, lines 31-35). Additionally, Pease et al. disclose that the substrate is comprises a modified silicon (non-native oxide-coated metal) (col. 12, lines 2-3). Therefore, the apparatus of Pease et al. anticipates the presently claimed invention.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1, 55-64, and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Patent 6,406,921 B1) and Pease et al. (US Patent 5,831,070).

Wagner et al. teach an array of proteins comprising a plurality of patches in discrete, known regions on a substrate, where a protein with different, known sequence is immobilized on each patch (col. 3, lines 26-29). The protein is refers to a polymer of amino acid that also include amino acid polymers in which one or more amino acid residues is an artificial chemical analogue of a corresponding naturally occurring amino acid (col. 6, lines 1-11). The array comprises of a monolayer on the surface of the substrate and the proteins are immobilized on the monolayer (col. 8, lines 9-17). The monolayer comprise of molecules of the formula X-R-Y, wherein X is a functional group that binds R to the surface (anchoring segment), (linker segment) R is a spacer, and Y is a functional group for binding proteins onto the monolayer. They are three major classes of monolayer formation are preferably used to expose high densities of bioreactive functionalities on the array, which are alkylsiloxane monolayer, alkyl-thiol/dialkyldisulfide monolayer, and alkyl monolayer (col. 8, lines 18-41). The functional group of X includes thiol and amine group (col. 10, lines 27-36). The functional group of Y includes N-hydroxysuccinimide (col. 11, lines 39-53).

Additionally, Wagner et al. disclose several different type of substrate of an array (col. 7, line 50 to col. 8, line 9). The array can be comprised of a substrate and a monolayer (col. 8, lines 10-17) (refers to claim 1) or a coating between the substrate and the monolayer (col. 8, lines 42-

45) (refers to claims 55-57). The substrate of the array comprises of numerous materials such as glass or aluminum (col. 7, lines 55-63) and for the array that include a coating, the coating comprises of metal film such as aluminum (col. 8, lines 54-57). Further, Wagner et al. discloses that when the surface of the substrate or the coating is a metal such as alumina then X, prior to incorporation of the monolayer, comprise of an oxide such as trialkoxysilane (non-native oxide coated metal) (col. 10, lines 39-46) (refers to claim 1).

The apparatus of Wagner et al. does not expressly disclose that the protein includes peptidomimetic protein.

Pease et al. teach an apparatus comprise a substrate with an array of polymers such as peptide analogs and oligonucleotides (col. 1, lines 52-57; col. 6, lines 4-54). The substrate is flat and comprise of silicon or glass surface (col. 8, lines 44-54; col. 12, lines 2-12). The surface of the solid substrate contain reactive groups (anchoring segment) such as amino (col. 12, lines 19-23). The substrate includes a surface with a layer of linker (linker segment) (col. 10, lines 24-28; col. 12, lines 31-35).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the protein such as peptidomimetic protein as taught by Pease et al. in the apparatus of Wagner et al. One of ordinary skill in the art would have been motivated to include the protein such as peptidomimetic protein in the apparatus of Wagner et al. for the advantage of providing a more economical production, greater chemical stability, enhanced pharmacological properties, altered specificity, and reduced antigen city (Pease: col. 6, lines 54-60). One of ordinary skill in the art would have reasonably expectation of success in the combination of Wagner et al. and Pease et al. because both Wagner et al. and Pease et al.

disclose an apparatus comprising an array of protein immobilized on a solid substrate (Wagner: col. 3, lines 26-29; Pease: col. 1, lines 52-57).

14. Claims 65, and 67-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Patent 6,406,921 B1) and Pease et al. (US Patent 5,831,070) as applied to claims 1, 55-64, and 66 above, and Barrett et al (US Patent 5,482,867).

Wagner et al. and Pease et al. disclose an apparatus comprising an array of protein immobilized on a substrate (Wagner: col. 3, lines 26-29; Pease: col. 1, lines 52-57). The protein includes peptide analogs such as peptidomimetic (Pease: col. 6, lines 4-54). The surface of the solid substrate contain reactive groups (anchoring segment) such as amino (Pease: col. 12, lines 19-23; Wagner: col. 8, lines 9-17 and lines 18-41). The substrate includes a surface with a layer of linker (linker segment) (Pease: col. 10, lines 24-28; col. 12, lines 31-35; Wagner: col. 8, lines 9-17 and lines 18-41). Further, Wagner et al. disclose that the (anchoring segment) functional group of X includes thiol and amine group (col. 10, lines 27-36). The (linker segment) functional group of Y includes N-hydroxysuccinimide (Wagner: col. 11, lines 39-53).

Additionally, Wagner et al. disclose several different type of substrate of an array (col. 7, line 50 to col. 8, line 9). The array can be comprised of a substrate and a monolayer (protein-binding agents) (col. 8, lines 10-17) (refers to claim 1) or a coating between the substrate and the monolayer (col. 8, lines 42-45) (refers to claims 55-57). The substrate of the array comprises of numerous materials such as glass or aluminum (col. 7, lines 55-63) and for the array that include a coating, the coating comprises of metal film such as aluminum (col. 8, lines 54-57). Wagner et al. also discloses that when the surface of the substrate or the coating is a metal such as alumina

then X, prior to incorporation of the monolayer, comprise of an oxide such as trialkoxysilane (non-native oxide coated metal) (col. 10, lines 39-46) (refers to claims 1, 69, and 71).

The apparatus of Wagner et al. and Pease et al. do not expressly disclose that the anchoring segment includes biotin and avidin.

Barrett et al. teaches an array of immobilized ligands on predefined regions of a surface of a solid support (col. 2, lines 36-41). The method involves attaching to the surface a caged binding member (anchor). The ligand includes peptides (col. 4, lines 34-60). The caged binding member is a biotin analog (col. 5, lines 45-56). Avidin can be immobilized onto the surface of the solid support and bind to biotin (col. 5, lines 57-65). One type of biotin analog is a biotin with N-succinimidyl and a linking group of 6-aminocaproic (NHS-lc-lc-biotin) (col. 14, lines 66-67 to col. 15, lines 1-30).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the anchoring segment includes biotin and avidin as taught by Barrett et al. in the apparatus of Wagner et al. and Pease et al. One of ordinary skill in the art would have been motivated to include the anchoring segment includes biotin and avidin in the apparatus of Wagner et al. and Pease et al. for the advantage of providing an efficiently and stably attaching a broad range ligands on predefined regions of a solid support (Barrett: col. 2, lines 26-32). One of ordinary skill in the art would have reasonably expectation of success in the combination of Wagner et al., Pease et al., and Barrett et al. because Wagner et al., Pease et al., and Barrett et al. disclose an apparatus comprising an array of biomolecules such as protein immobilized on a solid substrate (Wagner: col. 3, lines 26-29; Pease: col. 1, lines 52-57; Barrett: col. 2, lines 36-41).

15. Claims 73-83, and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Patent 6,406,921 B1) and Pease et al. (US Patent 5,831,070).

Wagner et al. teach an array of proteins comprising a plurality of patches in discrete, known regions on a substrate, where a protein with different, known sequence is immobilized on each patch (col. 3, lines 26-29). The protein is refers to a polymer of amino acid that also include amino acid polymers in which one or more amino acid residues is an artificial chemical analogue of a corresponding naturally occurring amino acid (col. 6, lines 1-11). The array comprises of a monolayer on the surface of the substrate and the proteins are immobilized on the monolayer (col. 8, lines 9-17). The monolayer comprise of molecules of the formula X-R-Y, wherein X is a functional group that binds R to the surface (anchoring segment), (linker segment) R is a spacer, and Y is a functional group for binding proteins onto the monolayer. They are three major classes of monolayer formation are preferably used to expose high densities of bioreactive functionalities on the array, which are alkylsiloxane monolayer, alkyl-thiol/dialkyldisulfide monolayer, and alkyl monolayer (col. 8, lines 18-41). The functional group of X includes thiol and amine group (col. 10, lines 27-36). The functional group of Y includes N-hydroxysuccinimide (col. 11, lines 39-53).

Additionally, Wagner et al. disclose several different type of substrate of an array (col. 7, line 50 to col. 8, line 9). The array can be comprised of a substrate and a monolayer (col. 8, lines 10-17) (refers to claim 1) or a coating between the substrate and the monolayer (col. 8, lines 42-45) (refers to claims 55-57). The substrate of the array comprises of numerous materials such as glass or aluminum (col. 7, lines 55-63) and for the array that include a coating, the coating comprises of metal film such as aluminum (col. 8, lines 54-57). Further, Wagner et al. discloses

that when the surface of the substrate or the coating is a metal such as alumina then X, prior to incorporation of the monolayer, comprise of an oxide such as trialkoxysilane (non-native oxide coated metal) (col. 10, lines 39-46) (refers to claim 1).

The apparatus of Wagner et al. does not expressly disclose that the protein includes peptidomimetic protein.

Pease et al. teach an apparatus comprise a substrate with an array of polymers such as peptide analogs and oligonucleotides (col. 1, lines 52-57; col. 6, lines 4-54). The substrate is flat and comprise of silicon or glass surface (col. 8, lines 44-54; col. 12, lines 2-12). The surface of the solid substrate contain reactive groups (anchoring segment) such as amino (col. 12, lines 19-23). The substrate includes a surface with a layer of linker (linker segment) (col. 10, lines 24-28; col. 12, lines 31-35).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the protein such as peptidomimetic protein as taught by Pease et al. in the apparatus of Wagner et al. One of ordinary skill in the art would have been motivated to include the protein such as peptidomimetic protein in the apparatus of Wagner et al. for the advantage of providing a more economical production, greater chemical stability, enhanced pharmacological properties, altered specificity, and reduced antigen city (Pease: col. 6, lines 54-60). One of ordinary skill in the art would have reasonably expectation of success in the combination of Wagner et al. and Pease et al. because both Wagner et al. and Pease et al. disclose an apparatus comprising an array of protein immobilized on a solid substrate (Wagner: col. 3, lines 26-29; Pease: col. 1, lines 52-57).

16. Claims 84, and 86-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Patent 6,406,921 B1) in view of Pease et al. (US Patent 5,831,070) as applied to claims 73-83, and 85 above, and further in view of Barrett et al (US Patent 5,482,867).

Wagner et al. and Pease et al. disclose an apparatus comprising an array of protein immobilized on a substrate (Wagner: col. 3, lines 26-29; Pease: col. 1, lines 52-57). The protein includes peptide analogs such as peptidomimetic (Pease: col. 6, lines 4-54). The surface of the solid substrate contain reactive groups (anchoring segment) such as amino (Pease: col. 12, lines 19-23; Wagner: col. 8, lines 9-17 and lines 18-41). The substrate includes a surface with a layer of linker (linker segment) (Pease: col. 10, lines 24-28; col. 12, lines 31-35; Wagner: col. 8, lines 9-17 and lines 18-41). Further, Wagner et al. disclose that the (anchoring segment) functional group of X includes thiol and amine group (col. 10, lines 27-36). The (linker segment) functional group of Y includes N-hydroxysuccinimide (Wagner: col. 11, lines 39-53).

Additionally, Wagner et al. disclose several different type of substrate of an array (col. 7, line 50 to col. 8, line 9). The array can be comprised of a substrate and a monolayer (protein-binding agents) (col. 8, lines 10-17) (refers to claim 1) or a coating between the substrate and the monolayer (col. 8, lines 42-45) (refers to claims 55-57). The substrate of the array comprises of numerous materials such as glass or aluminum (col. 7, lines 55-63) and for the array that include a coating, the coating comprises of metal film such as aluminum (col. 8, lines 54-57). Wagner et al. also discloses that when the surface of the substrate or the coating is a metal such as alumina then X, prior to incorporation of the monolayer, comprise of an oxide such as trialkoxysilane (non-native oxide coated metal) (col. 10, lines 39-46) (refers to claims 1, 69, and 71).

The apparatus of Wagner et al. and Pease et al. do not expressly disclose that the anchoring segment includes biotin and avidin.

Barrett et al. teaches an array of immobilized ligands on predefined regions of a surface of a solid support (col. 2, lines 36-41). The method involves attaching to the surface a caged binding member (anchor). The ligand includes peptides (col. 4, lines 34-60). The caged binding member is a biotin analog (col. 5, lines 45-56). Avidin can be immobilized onto the surface of the solid support and bind to biotin (col. 5, lines 57-65). One type of biotin analog is a biotin with N-succinimidyl and a linking group of 6-aminocaproic (NHS-lc-lc-biotin) (col. 14, lines 66-67 to col. 15, lines 1-30).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the anchoring segment includes biotin and avidin as taught by Barrett et al. in the apparatus of Wagner et al. and Pease et al. One of ordinary skill in the art would have been motivated to include the anchoring segment includes biotin and avidin in the apparatus of Wagner et al. and Pease et al. for the advantage of providing an efficiently and stably attaching a broad range ligands on predefined regions of a solid support (Barrett: col. 2, lines 26-32). One of ordinary skill in the art would have reasonably expectation of success in the combination of Wagner et al., Pease et al., and Barrett et al. because Wagner et al., Pease et al., and Barrett et al. disclose an apparatus comprising an array of biomolecules such as protein immobilized on a solid substrate (Wagner: col. 3, lines 26-29; Pease: col. 1, lines 52-57; Barrett: col. 2, lines 36-41).

Response to Arguments

17. Applicant's argument directed to the rejection under 35 USC 102(b) as being anticipated by Pease et al. (US Patent 5,831,070) was considered but they are not persuasive for the following reasons.

Applicant argues that "[t]he Pease reference is directed to a technology for applying arrays of oligonucleotides and other biological polymers to a substrate using photolithographic techniques" and thus does not anticipates the presently claimed array.

Applicant's arguments are not convincing since the resulting product (array) of the method of Pease et al. is identical in ***structure*** as the presently claimed array a *prima facie* case of anticipation has been establish. See MPEP 2112.01.

> *"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977)."*
>
> Therefore, the array of Pease et al. does anticipate the presently claimed array.

18. Applicant's argument directed to the rejection under 35 USC 103(a) as being unpatentable over Wagner et al. (US Patent 6,406,921 B1) and Pease et al. (US Patent 5,831,070) was considered but they are not persuasive for the following reason.

Applicant contends that "[t]he Pease reference is directed to a technology for applying arrays of oligonucleotides and other biological polymers to a substrate using photolithographic techniques; Wagner does not teach the use of peptidomimetric protein binding agents in accordance with the present invention". Thus, the combination of the Wagner et al. and Pease et al. would not result in the claimed array. In response to applicant's arguments against the

references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

19. Applicant's argument directed to the rejection under 35 USC 103(a) as being unpatentable over Wagner et al. (US Patent 6,406,921 B1), Pease et al. (US Patent 5,831,070), and (US Patent 5,482,867) was considered but they are not persuasive for the following reason.

Applicant alleges that "[t]he Pease reference is directed to a technology for applying arrays of oligonucleotides and other biological polymers to a substrate using photolithographic techniques; Wagner does not teach the use of peptidomimetric protein binding agents in accordance with the present invention". Thus, the combination of the Wagner et al. and Pease et al. would not result in the claimed array. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Chau T. Tran whose telephone number is 703-305-6999. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew J. Wang can be reached on 703-306-3217. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

mct
January 8, 2004

PADMASHRI PONNALURI
PRIMARY EXAMINER